

CLAIMS:

1. An inkjet recording element comprising a support having thereon a non-porous ink-receiving layer comprising a hydrophilic binder, a
5 cationic or anionic polymeric mordant, and particles of a synthetic, substantially amorphous aluminosilicate material, the primary particles thereof having an average diameter of 1 to 10 nm, wherein the synthetic, substantially amorphous aluminosilicate material exhibits an X-ray diffraction pattern that comprises weak peaks at about 2.2 and 3.3 Å.
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2. The inkjet recording element of claim 1 wherein the hydrophilic binder comprises poly(vinyl alcohol).
3. The inkjet recording element of claim 1 wherein the polymeric
15 mordant is a cationic polymer.
4. The inkjet recording element of claim 1 wherein the inkjet recording element further comprises a base layer located between the ink-receiving layer and the support.
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5. The inkjet recording element of claim 1 wherein the inkjet recording element further comprises an overcoat.
6. The inkjet recording element of claim 1 wherein the synthetic,
25 substantially amorphous aluminosilicate particles are substantially in the form of hollow spheres.
7. The inkjet recording element of claim 1 wherein the synthetic, substantially amorphous aluminosilicate material is a synthetic allophane with
30 essentially no iron atoms.

8. The inkjet recording element of claim 3 wherein the cationic polymer in the ink-receiving layer is a polymeric quaternary ammonium.

5 9. The inkjet recording element of claim 8 wherein the polymeric quaternary ammonium comprises monomeric units derived from vinylbenzene trimethyl ammonium chloride.

10 10. The inkjet recording element of claim 1 wherein the synthetic, substantially amorphous aluminosilicate material is a synthetic allophane having a positive charge.

11. The inkjet recording element of claim 1 wherein the synthetic, substantially amorphous particles comprise a polymeric aluminosilicate having the formula:



where the ratio of x:y is between 0.5 and 4, a and b are selected such that the rule of charge neutrality is obeyed; and n is between 0 and 10.

20 12. The inkjet recording element of claim 11 wherein the polymeric aluminosilicate comprises organic groups.

13. The inkjet recording element of claim 11 wherein the polymeric aluminosilicate has the formula:

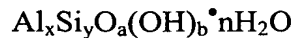


where the ratio of x:y is between 1 and 3.6, and a and b are selected such that the rule of charge neutrality is obeyed; and n is between 0 and 10.

30 14. The inkjet recording element of claim 1 wherein the average particle size of the synthetic, substantially amorphous particles is in the range from about 3 nm to about 6 nm.

15. The inkjet recording element of claim 1 wherein the synthetic, substantially amorphous particles are present in an amount of 5 to 30 weight percent solids.

5 16. The inkjet recording element of claim 11 wherein the synthetic, substantially amorphous aluminosilicate material is present in the ink-receiving layer in an amount of 5 to 30 weight percent solids and comprise substantially spherical hollow spheres, wherein the material is represented by the formula:



10 where the ratio of x:y is between 1 and 3.6, and a and b are selected such that the rule of charge neutrality is obeyed; and n is between 0 and 10.

17. The inkjet recording element of claim 16 wherein the ink-receiving layer comprises a binder in the amount of at least 65 weight percent
15 based on total solids.

18. The inkjet recording element of claim 1 wherein the ratio of hydrophilic binder to the synthetic, substantially amorphous aluminosilicate particles is about from about 95:5 to about 75:25.

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19. An inkjet printing method, comprising the steps of:
A) providing an inkjet printer that is responsive to digital data signals;
B) loading the inkjet printer with the inkjet recording element of
25 Claim 1;
C) loading the inkjet printer with an inkjet ink; and
D) printing on the inkjet recording element using the inkjet ink in response to the digital data signals.